

# Structuring the PA Process: Impact on Feedback Quality

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**Abstract:** The present study examines the impact of structuring the peer assessment process in a wiki-based CSCL-environment. Three conditions are involved: a non-structured, a basic structured, and an elaborated structured peer feedback condition. The main aim of this study is to foster insight into the aspect of peer feedback quality by focusing on the impact of the level of structuring and on the implemented measures to assess peer feedback by both peers and instructor.

## Introduction

By structuring the peer assessment (PA) process in a wiki-based CSCL-environment, this study investigates the impact on the quality of the peer feedback. Previous research highlighted the added value of PA in higher education (Topping, 2003) due to direct engagement in the learning process (see also Topping, 1998). Peer feedback can be seen as a specific approach of peer assessment, which aims to involve students in assessment for learning by asking them to provide fellow students with opinions, ideas and suggestions for improvement (Black & William, 1998). However, previous literature pointed out that students sometimes perceive peer assessment as unfair and often question peers' qualifications to review and assess their work (Kaufmann & Schunn, 2010; Strijbos, Narciss, & Dünnebier, 2010). Previous research emphasizes on the importance of students' feedback ability (Van Zundert et al., 2010) and the preference of using multiple peer markers to enhance accuracy of peer assessment (Bouzidi & Jaillet, 2009). Previous research also highlights the learning benefits of offering structure in a CSCL-environment (Strijbos & Weinberger, 2010), especially when certain support or structure is provided that further specifies the roles and activities for the involved learners (Fischer, Kollar, Mandl, & Haake, 2007; Schellens & Valcke, 2006; Strijbos, De Laat, Martens, & Jochems, 2005). Recently, research emphasizes on the need for structure and support to ensure effective feedback (Poverjuc, Brook, & Wray, 2012). Therefore, the present research focuses on the impact on the feedback quality when structuring the peer assessment process in a wiki-based CSCL environment. Empirical evidence suggests the use of wikis as an ideal CSCL-tool for supporting PA activities and online collaboration (De Wever, et al., 2011). Recommended by previous research, this study incorporates "feedback instruments such as performance scoring rubrics with criteria, or structured feedback forms that force feedback providers to ask reflective questions and give suggestions for improvement could be valuable instruments for increasing the quality of the peer feedback" (Prins, Sluijsmans, & Kirschner, 2006, p. 300).

## Methodology

The main aim of this study was to investigate the quality of students' feedback. During one semester, first year university students (N=178) participated in a quasi-experimental study in an authentic context in Higher Education. All students, enrolled in an educational sciences program, were divided into groups (N=37) of maximum five students and were asked to collaborate on writing assignments, in which each group member had to contribute to the wiki by writing three abstracts based on provided articles. Although this study uses only one fixed group member to provide peer feedback on the draft version of another group member, this process was structured (see further). Based on the feedback, the final version of the abstract was constructed together with an evaluation of the received peer feedback. After submitting their individual wiki page with three abstracts, all participating students had to summatively assess the three abstracts of the other group members with the help of a scoring rubric. In the beginning and at the end of the assignment phase, students had to complete a questionnaire including 5-point Likert items evaluating how they perceived the peer feedback process.

During the peer assessment process, students were required to employ a feedback form provided by the instructor, in which the structuring level depended on the condition. Three conditions were implemented: a non-structured peer feedback (NS-PFB) condition, a basic structured peer feedback (BS-PFB) condition and an elaborated structured peer feedback (ES-PFB) condition. Therefore, a more elaborated structure contains more guiding questions to assist students' thinking process during the peer assessment process, than a basic structured form. This study will investigate the impact of the three conditions on the quality of the feedback. Moreover, this study will explore how to effectively measure feedback quality. Therefore, the following hypothesis is examined: A higher level of structuring the PA process will lead to (H1) a higher feedback quality, and (H2) a higher reliability of PA

## Analysis

Firstly, the quality of the feedback will be analyzed by the researcher through content analysis, which can be described as “a summarizing, quantitative analysis of messages that relies on the scientific method and is not limited as to the types of variables that may be measured or the context in which the messages are created or presented” (Neuendorf, 2002, p. 10). Secondly, students have to evaluate their received peer feedback through a provided scoring rubric, which is based on the Feedback Quality Index (Prins, Sluijsmans, & Kirschner, 2006). Consequently, this study will examine the reliability of the feedback quality scores between instructor scores and students’ scores.

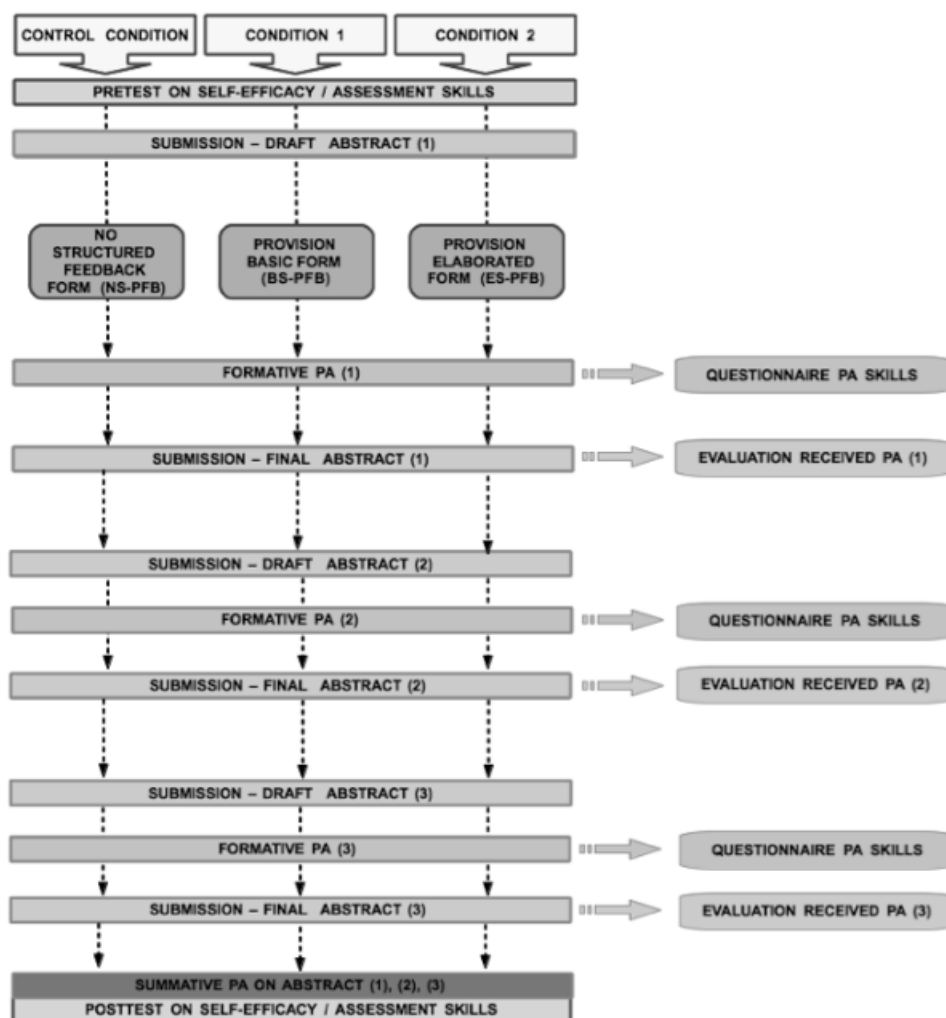


Figure 1. Research design.

## Results

The findings of this study will be reported at the CSCL 2013 conference. This research will provide information to what extent the instructor should structure the PA process in a CSCL environment to ensure effective peer feedback, by applying suggested feedback instruments for increasing the quality of the peer feedback. This poster session aims at gathering constructive input on the aspect of feedback quality, and more specifically, on the instructors’ intervention to ensure or maximize the quality of the peer assessment process.

## References

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